

significant residue occurs sometimes even in the larger features due to (1) interfacial mixing of resist and underlayer (2) diffusion of acid or other components of the resist into underlayer and (3) potential outgassing of components from underlayer into resist.

IN THE CLAIMS

1. (Amended) A method comprising:

disposing on a surface a layer of material;

disposing in said layer of material a resist material;

said layer of material having a crosslink density sufficiently high that said layer of material and said resist do not substantially intermix.

1. (Replacement) A method comprising:

disposing on a surface a layer of material;

disposing in said layer of material a resist material;

said layer of material having a crosslink density sufficiently high that said layer of material and said resist do not substantially intermix.

2. (Amended) A method according to claim 1, wherein said layer of material is [selected from the group consisting of] a novolak.

2. (Replacement) A method according to claim 1, wherein said layer of material is a novolak.

18. (Amended) A method according to claim 1 wherein [the crosslinking] said crosslink density is dependent on [the] processing conditions[-] selected from the group consisting of bake, temperature, time, [as well as] the formulation of said layer of material. [underlayer- i.e. the crosslinker that is put into the formulation, and the amount of crosslinker. It is a combination of designed formulation and processing conditions. If the underlayer is not appropriately designed significant residue occurs sometimes even in the larger features due to (1) interfacial mixing of resist and underlayer (2) diffusion of acid or other components of the resist into underlayer and (3) potential outgassing of components from underlayer into resist.]

18. (Replacement) A method according to claim 1 wherein said crosslink density is dependent on processing conditions selected from the group consisting of bake, temperature, time, the formulation of said layer of material.

19. (Added) A method comprising:

disposing on a surface of an electronic device a novolak material;

curing said material to a predetermined degree of crosslinking;

disposing on said novolak material a resist material, said degree of crosslinking being sufficient to substantially prevent said resist material from intermixing with said novolak material;

exposing said resist to a pattern of energy selected from the group consisting of electromagnetic radiation and a particle beam to form a pattern of exposed and unexposed regions in said resist;

developing said pattern to remove either said exposed or said unexposed regions of said resist to expose said layer of material where said resist is removed;